

Description

Telecommunication terminal

- 5 The invention relates to a telecommunication terminal, in particular a mobile telephone with silent call signaling, for example using a vibrating alarm or a visual alarm.
- 10 In many situations, for example in the presence of a large number of other people, audible call signaling or the ringing of a user's mobile telephone is found to be a nuisance. To prevent the nuisance of the mobile telephone ringing and yet be able to be reached at the
- 15 same time, there are mobile telephones which can be switched over to vibrating alarm, i.e. instead of the audible call signaling the mobile telephone vibrates and thus signals a call to the called party. However, this only works when the user is carrying the mobile
- 20 telephone on his body such that it can be felt, or when the mobile telephone is in the user's field of vision. As soon as the mobile telephone is in the user's pocket or coat, for example, he cannot detect the vibrating alarm.
- 25 Another problem of mobile telephones with a vibrating alarm is that the vibration which the vibrating alarm causes represents a loading on the electronic circuits of the telephone in addition to the stresses already
- 30 acting during use.

The invention is therefore based on the object of proposing a telecommunication terminal, in particular a mobile telephone with silent call signaling, which is

35 easier to handle and whose reliability is improved.

for the purpose of silent call signaling. The signaling apparatus, which requires just a radio receiver for short distances, a vibrating device and a small power supply unit, can have compact dimensions and low weight, allowing the signaling apparatus to be carried comfortably on the body. The user is therefore always able to detect the vibrating alarm. Another advantage of the invention is that the telecommunication terminal itself is not subjected to any vibration, and the loading on the sensitive mobile telephone electronics is thus reduced. In addition, the user's exposure to radio-frequency radiation is reduced, since only the signaling apparatus and not the terminal itself need be carried on the body. The cordless communication between terminal or mobile telephone and signaling apparatus extends only over distances of a few meters and therefore requires only very low transmission powers, whose radiation burden is harmless.

Advantageous developments of the invention are described in the subclaims.

The invention is explained in detail below using a preferred exemplary embodiment with reference to the appended figure 1, which schematically shows an inventive mobile telephone with an external signaling apparatus.

The telecommunication terminal or mobile telephone 1 has an input keypad, a display, an antenna 2, audible call signaling etc. In addition, a low-power transmission device is provided for cordless communication with the external silent signaling apparatus 3, which receives signaling signals sent by the telephone 1 by means of an antenna 4. Furthermore, the signaling apparatus 3 has a vibrating device for

producing vibration or a device for producing a visual or odorous call alarm. Preferably, the

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signaling apparatus 3 has a dedicated power supply, such as a rechargeable storage battery. This relieves the load on the power source of the mobile telephone 1 and thus lengthens the operating time thereof. Cordless communication between mobile telephone and signaling apparatus preferably takes place by radio. Alternatively, however, it may also take place in another manner, for example by means of infrared.

- 10 When the mobile telephone 1 receives a call, it sends a signaling signal to the signaling apparatus 3, which then triggers the vibrating alarm (or visual alarm). As soon as the user of the mobile telephone accepts the call, the mobile telephone sends a signaling end signal
- 15 to the signaling apparatus, which then ends the vibrating alarm.

- The mobile telephone 1 preferably has a conventional audible signaling device, and the user is able to make
- 20 a choice by changing over between audible signaling by the mobile telephone and silent signaling by the signaling apparatus 3. In accordance with one preferred variant of the invention, even when silent call signaling is turned on, the audible alarm device is
- 25 automatically activated if the signaling apparatus is not operational, for example the storage battery is exhausted or the radio link to the mobile telephone has been interrupted, or the physical distance between telephone and signaling apparatus exceeds a particular
- 30 value, such as 2 or 3 meters, and the user is too far from the mobile telephone to take a call.

- In accordance with another advantageous variant, the signaling apparatus has a sensor, for example a motion
- 35 sensor or heat sensor, which the signaling apparatus uses to detect that it is being carried on the user's

body, and the signaling apparatus 3 is thus automatically activated

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